

**To:** Deitz, Randy[Deitz.Randy@epa.gov]  
**From:** StClair, Christie  
**Sent:** Wed 4/13/2016 6:57:00 PM  
**Subject:** RE: OW, RANDY, R8 ACTION - Daily Caller (DDL COB today): GKM water quality

I didn't see this version! Sorry. Will re-send to reporter.

**Christie St. Clair**

Office of Public Affairs

Environmental Protection Agency

Washington, DC

o: 202-564-2880

m: 202-768-5780

**From:** Deitz, Randy  
**Sent:** Wednesday, April 13, 2016 2:56 PM  
**To:** StClair, Christie <StClair.Christie@epa.gov>  
**Subject:** RE: OW, RANDY, R8 ACTION - Daily Caller (DDL COB today): GKM water quality

NO, please use the revised final paragraph I sent (Q.3.) See below.

Prior to completing a Remedial Investigation and Feasibility Study (RI/FS), EPA will not know what the site's cleanup scope will be, and, therefore, we can't estimate how long cleanup actions may take. At all Superfund sites, the length of time to complete remediation work depends on a number of site specific factors. For example, it's hard to predict when the RI/FS will be done, how many other Superfund projects will be in the queue for construction funding that year, and whether there will be one or more responsible

parties (PRPs) helping to pay for the cleanup. We also don't know yet what are all of the problems that need to be addressed, and therefore what the cleanup remedies should be --- that information, which will be included in the proposed remediation plan, will ultimately help determine project cost and timeline.

Randy Deitz

Attorney Advisor

Office of Land and Emergency Management

(202) 566-0197

**From:** StClair, Christie

**Sent:** Wednesday, April 13, 2016 2:54 PM

**To:** Card, Joan <[Card.Joan@epa.gov](mailto:Card.Joan@epa.gov)>

**Cc:** Grantham, Nancy <[Grantham.Nancy@epa.gov](mailto:Grantham.Nancy@epa.gov)>; Wall, Tom <[Wall.Tom@epa.gov](mailto:Wall.Tom@epa.gov)>; Jenkins, Laura Flynn <[Jenkins.Laura@epa.gov](mailto:Jenkins.Laura@epa.gov)>; Deitz, Randy <[Deitz.Randy@epa.gov](mailto:Deitz.Randy@epa.gov)>; Loop, Travis <[Loop.Travis@epa.gov](mailto:Loop.Travis@epa.gov)>; Schollhamer, Mary <[Schollhamer.Mary@epa.gov](mailto:Schollhamer.Mary@epa.gov)>; Belle, Kara <[Belle.Kara@epa.gov](mailto:Belle.Kara@epa.gov)>; Wells, Suzanne <[Wells.Suzanne@epa.gov](mailto:Wells.Suzanne@epa.gov)>

**Subject:** RE: OW, RANDY, R8 ACTION - Daily Caller (DDL COB today): GKM water quality

Thanks, everybody, for your help. Below is the final I'll send.

**1. I understand that part of the monitoring plan at the Animas River involves monitoring contaminant levels during storms events. Does this monitoring also include the San Juan River?**

Yes. All monitoring sites are listed in the final plan, which is on the Gold King Mine response site. Here is the document's url: [https://www.epa.gov/sites/production/files/2016-03/documents/post-gkm-final-conceptual-monitoring-plan\\_2016\\_03\\_24\\_16.pdf](https://www.epa.gov/sites/production/files/2016-03/documents/post-gkm-final-conceptual-monitoring-plan_2016_03_24_16.pdf)

You'll find the sites listed on pages 13-15.

## **2. Does the EPA have a plan to protect human and wildlife health if that monitoring shows spiked contaminant levels during storm events?**

Historically, the Animas River has an elevated "normal" (pre-event) level of metals independent of the Gold King Mine release, due to the constant supply of acid mine drainage into the river from many sources.

Acid mine drainage has been released into the rivers for many decades and winter runoff and major storms may kick up material that had settled to the bottom of the rivers. So those using the river for recreation, agriculture or drinking water should use the same precautions they always have.

The EPA is currently working with state, local and tribal stakeholders to address long-term solutions, including recently proposing the Bonita Peak Mining District to the National Priorities List (NPL).

There may be occasions when the metal concentrations fluctuate from time to time because of water surges due to heavy rains or other events that may change the water flow rates or volume, but ~~this should not diminish the fact that~~ the river system as a whole is being maintained at pre-event conditions. We have released a monitoring plan to determine any longer term impacts and are currently working with local and state stakeholders to implement those efforts.

Here is some additional background on the region you may find useful.

EPA and the Colorado Department of Public Health and Environment (CDPHE) conducted a Superfund Site Assessment of the area in the 1990s. The assessment showed that water quality standards were not achieved in the Animas River near Silverton and identified the severe impacts to aquatic life in the Upper Animas and its tributaries from naturally occurring and mining-related heavy metals. In recognition of the community-based collaborative effort, EPA agreed to postpone adding all or a portion of the site to the Superfund NPL, as long as progress was being made to improve the water quality of the Animas River. Until approximately 2005, water quality in the Animas River was improving. However, since 2005, water quality in the Animas River has not improved and, for at least 20 miles below the confluence with Cement

Creek and the water quality has declined significantly. Impacts to aquatic life were also demonstrated by fish population surveys conducted by Colorado Parks and Wildlife, which found no fish in the Animas River below Cement Creek for approximately two miles and observed precipitous declines in fish populations as far as 20 miles downstream since 2005. Because of this declining water quality in the Animas River, in 2008, EPA's Superfund Site Assessment program began investigations in Upper Cement Creek focused on evaluating whether the Upper Cement Creek area alone would qualify for inclusion on the NPL. This evaluation indicated that the area would qualify, although after receiving additional community input, EPA postponed efforts to include the area on the National Priorities List. Since that time, EPA has continued and broadened its investigations of conditions at the site in order to understand the major sources of heavy metal contamination in the Upper Animas. SITE RISK: Mining operations have greatly disturbed the land, adding to existing highly mineralized conditions in many areas of the site. Mineralized waste rock exposed to air and water causes acidic conditions to mobilize the release of heavy metals to the surrounding environment. These heavy metals have found their way into the Animas River and its tributaries and have eventually traveled farther downstream.

**3. How long will it take to complete cleaning at the Bonita Pike Mining District and how much will it cost? Additionally, what are the time and cost estimates to finish cleaning just Gold King Mine and the Animas River?**

Prior to completing an RI/FS, EPA will not know what the site's cleanup scope will be, and, therefore, we can't estimate how long cleanup actions will take. At all sites, the length of time to complete all remediation work depends on a number of site specific factors. For example, it's hard to predict what year the remedial investigation and feasibility study will be done, how many other sites will be in the queue for funding that year, and whether there will be one or more PRPs helping pay for the cleanup. We also don't know yet what the exact problems are, and what the remedies should be --- that information, which will be included in the remediation proposal, will ultimately determine project cost and timeline.

**Christie St. Clair**

Office of Public Affairs

Environmental Protection Agency

Washington, DC

o: 202-564-2880

m: 202-768-5780

**From:** Card, Joan

**Sent:** Wednesday, April 13, 2016 2:50 PM

**To:** StClair, Christie <[StClair.Christie@epa.gov](mailto:StClair.Christie@epa.gov)>

**Cc:** Grantham, Nancy <[Grantham.Nancy@epa.gov](mailto:Grantham.Nancy@epa.gov)>; Wall, Tom <[Wall.Tom@epa.gov](mailto:Wall.Tom@epa.gov)>; Jenkins, Laura Flynn <[Jenkins.Laura@epa.gov](mailto:Jenkins.Laura@epa.gov)>; Deitz, Randy <[Deitz.Randy@epa.gov](mailto:Deitz.Randy@epa.gov)>; Loop, Travis <[Loop.Travis@epa.gov](mailto:Loop.Travis@epa.gov)>; Schollhamer, Mary <[Schollhamer.Mary@epa.gov](mailto:Schollhamer.Mary@epa.gov)>; Belle, Kara <[Belle.Kara@epa.gov](mailto:Belle.Kara@epa.gov)>; Wells, Suzanne <[Wells.Suzanne@epa.gov](mailto:Wells.Suzanne@epa.gov)>

**Subject:** Re: OW, RANDY, R8 ACTION - Daily Caller (DDL COB today): GKM water quality

Having heard no other input from LT, ok.

Joan Card

Senior Policy Advisor

Region 8

Sent from my EPA iPhone

On Apr 13, 2016, at 1:45 PM, StClair, Christie <[StClair.Christie@epa.gov](mailto:StClair.Christie@epa.gov)> wrote:

Joan, does R8 concur with the version below?

**Christie St. Clair**

Office of Public Affairs

Environmental Protection Agency

Washington, DC

o: 202-564-2880

m: 202-768-5780

**From:** Card, Joan  
**Sent:** Wednesday, April 13, 2016 2:33 PM  
**To:** Grantham, Nancy <[Grantham.Nancy@epa.gov](mailto:Grantham.Nancy@epa.gov)>  
**Cc:** Wall, Tom <[Wall.Tom@epa.gov](mailto:Wall.Tom@epa.gov)>; StClair, Christie <[StClair.Christie@epa.gov](mailto:StClair.Christie@epa.gov)>; Jenkins, Laura Flynn <[Jenkins.Laura@epa.gov](mailto:Jenkins.Laura@epa.gov)>; Deitz, Randy <[Deitz.Randy@epa.gov](mailto:Deitz.Randy@epa.gov)>; Loop, Travis <[Loop.Travis@epa.gov](mailto:Loop.Travis@epa.gov)>; Schollhamer, Mary <[Schollhamer.Mary@epa.gov](mailto:Schollhamer.Mary@epa.gov)>; Belle, Kara <[Belle.Kara@epa.gov](mailto:Belle.Kara@epa.gov)>; Wells, Suzanne <[Wells.Suzanne@epa.gov](mailto:Wells.Suzanne@epa.gov)>  
**Subject:** Re: OW, RANDY, R8 ACTION - Daily Caller (DDL COB today): GKM water quality

Now I see that deletion. Thanks.

Joan Card

Senior Policy Advisor

Region 8

Sent from my EPA iPhone

On Apr 13, 2016, at 1:31 PM, Grantham, Nancy <[Grantham.Nancy@epa.gov](mailto:Grantham.Nancy@epa.gov)> wrote:

I agree – it leans too far in .. in my view.

Thanks ng

**From:** Wall, Tom  
**Sent:** Wednesday, April 13, 2016 2:31 PM  
**To:** StClair, Christie <[StClair.Christie@epa.gov](mailto:StClair.Christie@epa.gov)>; Jenkins, Laura Flynn <[Jenkins.Laura@epa.gov](mailto:Jenkins.Laura@epa.gov)>; Card, Joan <[Card.Joan@epa.gov](mailto:Card.Joan@epa.gov)>; Deitz, Randy <[Deitz.Randy@epa.gov](mailto:Deitz.Randy@epa.gov)>  
**Cc:** Loop, Travis <[Loop.Travis@epa.gov](mailto:Loop.Travis@epa.gov)>; Schollhamer, Mary <[Schollhamer.Mary@epa.gov](mailto:Schollhamer.Mary@epa.gov)>; Grantham, Nancy <[Grantham.Nancy@epa.gov](mailto:Grantham.Nancy@epa.gov)>; Belle, Kara <[Belle.Kara@epa.gov](mailto:Belle.Kara@epa.gov)>; Wells, Suzanne <[Wells.Suzanne@epa.gov](mailto:Wells.Suzanne@epa.gov)>  
**Subject:** RE: OW, RANDY, R8 ACTION - Daily Caller (DDL COB today): GKM water quality

Defer to Region 8 and ORD, but I think it's safer to omit this sentence, which is shown as struck in the proposed text below: ~~***The metals detected from the August 5<sup>th</sup> release are no different in content than what would be expected from historical discharges.***~~

Tom W.

**From:** StClair, Christie

**Sent:** Wednesday, April 13, 2016 2:18 PM

**To:** Jenkins, Laura Flynn <[Jenkins.Laura@epa.gov](mailto:Jenkins.Laura@epa.gov)>; Wall, Tom <[Wall.Tom@epa.gov](mailto:Wall.Tom@epa.gov)>; Card, Joan <[Card.Joan@epa.gov](mailto:Card.Joan@epa.gov)>; Deitz, Randy <[Deitz.Randy@epa.gov](mailto:Deitz.Randy@epa.gov)>

**Cc:** Loop, Travis <[Loop.Travis@epa.gov](mailto:Loop.Travis@epa.gov)>; Schollhamer, Mary <[Schollhamer.Mary@epa.gov](mailto:Schollhamer.Mary@epa.gov)>; Grantham, Nancy <[Grantham.Nancy@epa.gov](mailto:Grantham.Nancy@epa.gov)>; Belle, Kara <[Belle.Kara@epa.gov](mailto:Belle.Kara@epa.gov)>; Wells, Suzanne <[Wells.Suzanne@epa.gov](mailto:Wells.Suzanne@epa.gov)>

**Subject:** RE: OW, RANDY, R8 ACTION - Daily Caller (DDL COB today): GKM water quality

Some tweaks below. GTG from R8? OW?

**Christie St. Clair**

Office of Public Affairs

Environmental Protection Agency

Washington, DC

o: 202-564-2880

m: 202-768-5780

**From:** Jenkins, Laura Flynn

**Sent:** Wednesday, April 13, 2016 1:41 PM

**To:** StClair, Christie <[StClair.Christie@epa.gov](mailto:StClair.Christie@epa.gov)>; Wall, Tom <[Wall.Tom@epa.gov](mailto:Wall.Tom@epa.gov)>; Card, Joan <[Card.Joan@epa.gov](mailto:Card.Joan@epa.gov)>; Deitz, Randy <[Deitz.Randy@epa.gov](mailto:Deitz.Randy@epa.gov)>

**Cc:** Loop, Travis <[Loop.Travis@epa.gov](mailto:Loop.Travis@epa.gov)>; Schollhamer, Mary <[Schollhamer.Mary@epa.gov](mailto:Schollhamer.Mary@epa.gov)>; Grantham, Nancy <[Grantham.Nancy@epa.gov](mailto:Grantham.Nancy@epa.gov)>; Belle, Kara <[Belle.Kara@epa.gov](mailto:Belle.Kara@epa.gov)>; Wells, Suzanne <[Wells.Suzanne@epa.gov](mailto:Wells.Suzanne@epa.gov)>

**Subject:** RE: OW, RANDY, R8 ACTION - Daily Caller (DDL COB today): GKM water quality

Christie:

I found the 1<sup>st</sup> part of the response to #2 a bit confusing so embedded some language from a similar response that might work. The language I embedded was previously vetted – however – it was written before the monitoring plan was finalized so I updated it to reflect that change. OW/ORD should also confirm that the following sentence is still accurate and, if not, it should be stricken: *The metals detected from the August 5<sup>th</sup> release are no different in content than what would be expected from historical discharges.*

Thanks for the chance to review.

Laura Jenkins

Media Officer

USEPA-Region 8

1595 Wynkoop St.

Mailcode: 8-OC

Denver, CO 80202

Landline: 303-312-6256

Cell: 202-360-8453

Fax: 303-312-6961

**From:** StClair, Christie

**Sent:** Wednesday, April 13, 2016 11:00 AM

**To:** Wall, Tom <[Wall.Tom@epa.gov](mailto:Wall.Tom@epa.gov)>; Card, Joan <[Card.Joan@epa.gov](mailto:Card.Joan@epa.gov)>; Jenkins, Laura Flynn <[Jenkins.Laura@epa.gov](mailto:Jenkins.Laura@epa.gov)>; Deitz, Randy <[Deitz.Randy@epa.gov](mailto:Deitz.Randy@epa.gov)>

**Cc:** Loop, Travis <[Loop.Travis@epa.gov](mailto:Loop.Travis@epa.gov)>; Schollhamer, Mary <[Schollhamer.Mary@epa.gov](mailto:Schollhamer.Mary@epa.gov)>; Grantham, Nancy <[Grantham.Nancy@epa.gov](mailto:Grantham.Nancy@epa.gov)>; Belle, Kara <[Belle.Kara@epa.gov](mailto:Belle.Kara@epa.gov)>; Wells, Suzanne <[Wells.Suzanne@epa.gov](mailto:Wells.Suzanne@epa.gov)>

**Subject:** OW, RANDY, R8 ACTION - Daily Caller (DDL COB today): GKM water quality

Ethan Barton is looking for our response on this by end of today. We've addressed most of this previously, so I'm just looking for OW, OLEM IO, and R8 approval before sending.



**1. I understand that part of the monitoring plan at the Animas River involves monitoring contaminant levels during storms events. Does this monitoring also include the San Juan River?**

[OW review – this is a new response] Yes. All monitoring sites are listed in the final plan, which is on the Gold King Mine response site. Here is the document's url:  
[https://www.epa.gov/sites/production/files/2016-03/documents/post-gkm-final-conceptual-monitoring-plan\\_2016\\_03\\_24\\_16.pdf](https://www.epa.gov/sites/production/files/2016-03/documents/post-gkm-final-conceptual-monitoring-plan_2016_03_24_16.pdf)

You'll find the sites listed on pages 13-15.

**2. Does the EPA have a plan to protect human and wildlife health if that monitoring shows spiked contaminant levels during storm events?**

[Do R8 or OW have anything to add? This is from previous responses, and the fact sheet on the GKM site.] Historically, the Animas River has an elevated "normal" (pre-event) level of metals independent of the Gold King Mine release, due to the constant supply of acid mine drainage into the river from many sources. There are literally hundreds of old mines, ore-processing locations and other places where acid mine drainage containing metals enters small streams and creeks that ultimately enter the Animas River.

Acid mine drainage has been released into the rivers for many decades and winter runoff and major storms may kick up material that had settled to the bottom of the rivers. So those using the river for recreation, agriculture or drinking water should use the same precautions they always have.

The EPA is currently working with state, local and tribal stakeholders to address long-term solutions to the acid mine drainage discharging into the Upper Animas watershed, including **recently proposing the Bonita Peak Mining District to the National Priorities List (NPL)** a proposed NPL listing,

~~*Please note that water discharge from several mines in this area have been flowing into the Animas and San Juan river system for over 100 years. The metals detected from the August 5<sup>th</sup> release are no different in content than what would be expected from historical discharges. Results of samples taken subsequent to the release indicate that metal concentrations in the surface waters and sediments have been generally at those pre-event conditions. It should be noted that There may be occasions when the metal*~~

*concentrations fluctuate from time to time because of water surges due to heavy rains or other events that may change the water flow rates or volume, but ~~this should not diminish the fact that the river system as a whole is being maintained at pre-event conditions.~~ We have released a monitoring plan to determine any longer term impacts and are currently working with local and state stakeholders to implement those efforts.*

Here is some additional background on the region you may find useful.

EPA and the Colorado Department of Public Health and Environment (CDPHE) conducted a Superfund Site Assessment of the area in the 1990s. The assessment showed that water quality standards were not achieved in the Animas River near Silverton and identified the severe impacts to aquatic life in the Upper Animas and its tributaries from naturally occurring and mining-related heavy metals. In recognition of the community-based collaborative effort, EPA agreed to postpone adding all or a portion of the site to the Superfund NPL, as long as progress was being made to improve the water quality of the Animas River. Until approximately 2005, water quality in the Animas River was improving. However, since 2005, water quality in the Animas River has not improved and, for at least 20 miles below the confluence with Cement Creek and the water quality has declined significantly. Impacts to aquatic life were also demonstrated by fish population surveys conducted by Colorado Parks and Wildlife, which found no fish in the Animas River below Cement Creek for approximately two miles and observed precipitous declines in fish populations as far as 20 miles downstream since 2005. Because of this declining water quality in the Animas River, in 2008, EPA's Superfund Site Assessment program began investigations in Upper Cement Creek focused on evaluating whether the Upper Cement Creek area alone would qualify for inclusion on the NPL. This evaluation indicated that the area would qualify, although after receiving additional community input, EPA postponed efforts to include the area on the National Priorities List. Since that time, EPA has continued and broadened its investigations of conditions at the site in order to understand the major sources of heavy metal contamination in the Upper Animas. **SITE RISK:** Mining operations have greatly disturbed the land, adding to existing highly mineralized conditions in many areas of the site. Mineralized waste rock exposed to air and water causes acidic conditions to mobilize the release of heavy metals to the surrounding environment. These heavy metals have found their way into the Animas River and its tributaries and have eventually traveled farther downstream.

**3. How long will it take to complete cleaning at the Bonita Pike Mining District and how much will it cost? Additionally, what are the time and cost estimates to finish cleaning just Gold King Mine and the Animas River?**

[OLEM review – ok to use language from previous responses?.] Prior to completing an RI/FS, EPA will not know what the site's cleanup scope will be, and, therefore, we can't estimate how long cleanup actions will take. At all sites, the length of time to complete all remediation work depends on a number of site specific factors. For example, it's hard to predict what year the

remedial investigation and feasibility study will be done, how many other sites will be in the queue for funding that year, and whether there will be one or more PRPs helping pay for the cleanup. We also don't know yet what the exact problems are, and what the remedies should be --- that information, which will be included in the remediation proposal, will ultimately determine project cost and timeline.

**Christie St. Clair**

Office of Public Affairs

Environmental Protection Agency

Washington, DC

o: 202-564-2880

m: 202-768-5780